

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method comprising:

receiving network data in a first format via a first card coupled to a first network;

converting the data to a synchronous optical network (SONET/SDH) format;

transmitting the SONET/SDH formatted data as one or more serial data signals to a cross-connect card via a backplane;

performing switching functions on the SONET/SDH formatted data using the cross-connect card; and

transmitting the SONET/SDH formatted data as one or more serial data signals to a second card coupled to a second network via the backplane; and

converting the SONET/SDH formatted data to a second format and transmitting the data in the second format to the second network using the second card.

2. (Currently Amended) The method of claim 1 wherein performing switching functions on the SONET/SDH formatted data comprises performing time switching and space switching.

3. (Cancelled)

4. (Currently Amended) The method of claim 3 1 wherein the one or more serial data signals are transmitted via the backplane as a differential pair.

5. (Original) The method of claim 1 wherein the data in the second format comprises an aggregation of multiple data signals in the first format.

6. (Cancelled)

7. (Cancelled)

8. (Currently Amended) The method of claim 1, further comprising communicating ~~wherein~~ the SONET/SDH formatted data ~~is communicated~~ according to one of STS-1, STS-3, STS-12, STS-48 and STS-192 protocols.

9. (Currently Amended) An apparatus comprising:

means for receiving network data in a first format via a first card coupled to a first network

means for converting the data to a synchronous optical network (SONET/SDH) format;

means for transmitting the SONET/SDH formatted data as one or more serial data signals to a cross-connect card via a backplane;

means for performing switching functions on the SONET/SDH formatted data at the cross-connect card;

means for transmitting the SONET/SDH formatted data; at the cross-connect card; and

means for transmitting the SONET/SDH formatted data as one or more serial data signals to a second card coupled to a second network;

means for converting the SONET/SDH formatted data to a second format; and

means for transmitting the data in the second format to the second network via the second card.

10. (Currently Amended) The apparatus of claim 9 wherein the means for performing switching functions on the SONET/SDH formatted data comprises means for performing time switching and space switching.

11. (Cancelled)

12. (Currently Amended) The apparatus of claim ~~11~~ 9 wherein the one or more serial data signals is transmitted via the backplane as a differential pair.

13. (Original) The apparatus of claim 9 wherein the data in the second format comprises an aggregation of multiple data signals in the first format.

14. (Cancelled)

15. (Cancelled)

16. (Currently Amended) The method of claim 9 ~~wherein~~ further comprising means for communicating the SONET/SDH formatted data ~~is communicated~~ according to one of STS-1, STS-3, STS-12, STS-48 and STS-192 protocols.

17. (New) A system comprising:

a first card coupled to a first network compatible with a first data format, the first card being configured to convert data from the first data format to a synchronous optical network (SONET/SDH) format, and vice versa;

a second card coupled to a second network compatible with a second data format, the second card being configured to convert data in the second data format to the SONET/SDH format, and vice versa;

a cross-connect card configured to perform switching functions on data in the SONET/SDH format; and

a backplane communicatively connecting the first card, second card, and cross-connect card, the backplane being configured to carry data in the SONET/SDH format as one or more serial data signals between the first card, the cross-connect card, and the second card.

a
cont
18. (New) The system of claim 17, wherein the first and second cards each include an application specific integrated circuit (ASIC) configured to perform parallel-to-serial conversion and serial-to-parallel conversion on data in the SONET/SDH format.

19. (New) The system of claim 18, wherein the ASIC is configured to perform parallel-to-serial conversion on the data in the SONET/SDH format, thereby making the data suitable for transmission to the cross-connect card via the backplane.

20. (New) The system of claim 18, wherein the ASIC is configured to perform serial-to-parallel conversion on the data in the SONET/SDH format, the data being received from the cross-connect card via the backplane.

21. (New) The system of claim 17, wherein the cross-connect card includes an application specific integrated circuit (ASIC) configured to perform the switching functions on the data in the SONET/SDH format.

al
out
22. (New) The system of claim 17, wherein the cross-connect card includes a first and second application specific integrated circuit (ASIC), each of the first and second ASICs being configured to perform parallel-to-serial conversion and serial-to-parallel conversion on data in the SONET/SDH format.

23. (New) The system of claim 17, wherein

the first ASIC is configured to perform serial-to-parallel conversion on the data in the SONET/SDH format, the data being received from the first card via the backplane,

the second ASIC is configured to perform parallel-to-serial conversion on the data in the SONET/SDH format, thereby making

the data suitable for transmission to the second card via the backplane; and

*at
amt*
the cross-connect card further comprises a third ASIC configured to perform the switching functions on the data converted by the first ASIC, the switched data being sent to the second ASIC for conversion.
